

Agenda Today

- Keva properties
- Activities you can use with students
- Math Research & your role in block play
- Familiar with blocks and activities so you're ready to apply
- Have Fun!!

Warm UP ©

Block Activity

- You each have planks
- Working with your team
- Together as you build and handle your blocks, describe your blocks with as many math and science words, concepts, principles as you can think of
- Record responses on the grid provided
- You have 5 minutes
- Ready, set, go!

Emergent Math & Science Words

1		1	1	h	^	1	Δ
222	30	Г	1	U	U	V	ᆫ

2. Add

3. All

4. Analyze

5. Balance

6. Below

7. Black

8. Blue

9. Bottom

10. Colors

11. Compare

12. Compute

13. Corners

14. Count

15. Cubes

16. Data

17. Different

18. Direction

19. Divide

20. End

21. Equal

22. Estimate

23. Far

24. Few

25. Flat

26. Flip

27. Gravity

28. Green

29. Group

30. Half

31. Horizontal

32. how many

33. Left

34. Length

35. Line

36. Long

37. Many

38. Measure

39. Minus

40. model

41. Near

42. Next to

43. None

44. Numbers

45. Numerals

46. 1 to 1 correspondence

47. Orange

48. Order

49. Parts

50. Pattern

51. Perspective

52. Plus

53. Properties

54. Quantity

Emergent Math & Science Words

- 55. Quarter
- 56. Rectangle
- 57. Red
- 58. Relationships
- 59. Represent
- 60. Right
- 61. Same
- 62. Sentence
- 63. Set
- 64. Short
- 65. Side by side
- 66. Side
- 67. Smooth
- 68. Sort
- 69. Square
- 70. Stack

- 71. Subtract
- 72. Symbol
- 73. Symmetry
- 74. Third
- 75. Top
- 76. Triangle
- 77. Unequal
- 78. Vertical
- 79. 2 dimensional
- 80. Weight
- 81. Whole
- 82. Wooden
- 83. Yellow
- 84. Slope
- 85. Angle
- 86. Fall
- 87. Hard

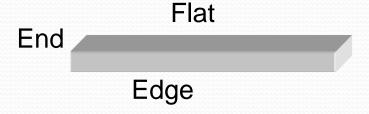
- 88. Round
- 89. Row
- 90. Straight
- 91. Space
- 92. Even
- 93. Predict
- 94. polygon
- 95. hexagon
- 96. pentagon
- 97. octagon
- 98. rhombus
- 99. First, Second
- 100. Value

What do we know about math & block play?

- Children are more capable of understanding math concepts than we often give them credit for.
- Early math competence predicts later math achievement. (Duncan)
- Block play increases in complexity with time, experience and opportunity. (Phelps, et al)
- Block play at age 3 is related to complex math abilities in 7th – 12th grades. (Wolfgang, et al).

Keva Properties

- Building Position: It's best to build from a squatting position. This
 allows children to easily get several views of their building. It also
 keeps children from accidentally knocking over their building with
 their knees when they get up from kneeling or sitting on the floor.
- It's best to build on the floor rather than on a table, which can be easily bumped. You can create an even surface on a carpeted or textured floor by laying Keva® down to create a platform to build on.
- Keva® has three dimensions: the flat side, the end and the edge



Keva Talk



Flat	On edge	Leaning
Upright	Parallel	Perpendicular
Stack	Adjacent	On end
Angled	Touching	Spaced
Even	Length	Right angle

What is the adults' role in block play?

- Adults make a difference in a child's math abilities, attitudes and accomplishments.
- Provide opportunity
- Ample space and blocks
- Protected so it won't be easily disturbed
- Record accomplishments (how?)
- Join in, model, describe, affirm
- Interpreters of reality

Jacobs & Bleeker, 2004

Additional Activities:

Young builders

- May build in parallel play rather than cooperatively
- Lower tolerance for frustration
- Need prompts or challenges (can you build a tower as tall as yourself?)

Older builders

- Expect they will need more blocks
- Expect them to be able to work on a team and cooperate and assign roles
- Collaborative challenges are fun for them.
- Check your handbook for more activities

End with a building challenge:

Each team may use all their blocks

Must start on a platform of 4 blocks placed on their

flat side touching each other

- Build as high and wide as you can without any other blocks touching the floor.
- You have 15 minutes to plan and build.
- Go!



Questions? Ideas?

